

# Unit 2



## Development Programme Implementation and Marketing in Livestock Sector

### INTRODUCTION

This unit is about how an animal health worker can assist various organisations in implementing programmes and projects in the livestock sector. Issues such as empowerment of livestock farmers, creation of awareness, engagement with stakeholders and promotion of economic activities are discussed in this unit. Special focus has been given on marketing of livestock products.

This unit will enable an animal health worker in helping in selection of targeted beneficiaries and also work with them in implementing developmental activities. They will also be able to ensure convergence of developmental projects. This will motivate the farmers to form self-help groups and guide them in business options and basic economics of various livestock activities. An animal health worker will also be able to encourage farmers to produce for the market and promote collective marketing of livestock products. They will also be able to provide information to livestock farmers on prices of farm inputs as well as output.

## SESSION 1: AWARENESS PROGRAMMES FOR FARMERS

### Relevant knowledge

Awareness programmes entail extending benefits of technology and skills to the rural population. It is an effort to extend research-based knowledge to the rural areas to improve the lives of farmers. This process offers advice and information to help the farmers solve their problems with the help of authentic information and skills provided to them. This encourages the farmers to take proper and beneficial decisions in their operations. Awareness helps to increase the efficiency of the farm, increase production and thus improve the standard of living of the farmers.

### Need for awareness programmes for livestock farmers

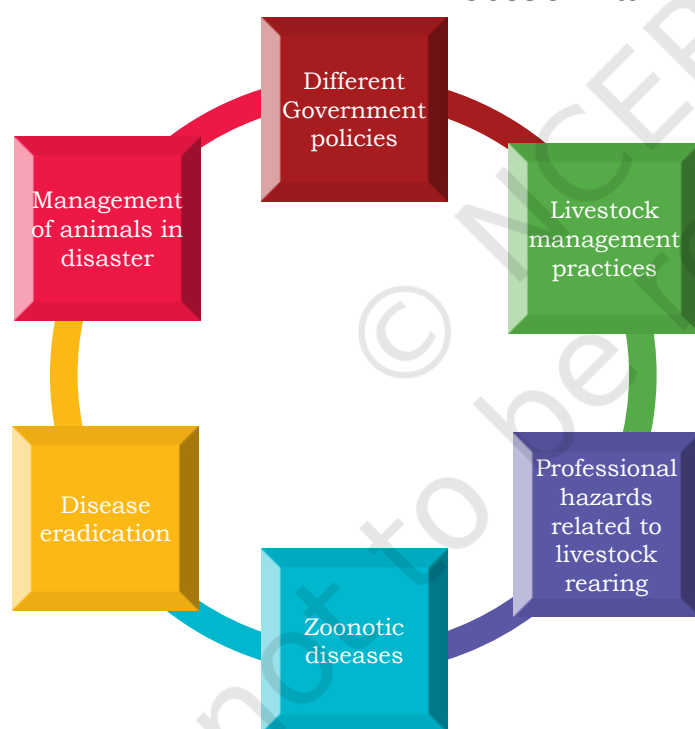


Fig. 2.1: Awareness programmes for farmers

Awareness programmes are the activities conducted to disseminate right and timely information and give exposure to the farming community on different types of farming. These programmes cover various animal husbandry/agricultural marketing reforms, modern marketing methods, policies on livestock farming system, general management practices, latest technology and its transfer, availing bank loan and finances, etc., and to upgrade their skills.

In the animal husbandry sector, various awareness programmes are organised for farmers. These programmes are shown in Fig. 2.1.

### National programmes for animal husbandry and livestock

To promote animal husbandry based entrepreneurship and to enhance livestock productivity and production,

the Department of Animal Husbandry and Dairying, Ministry of Agriculture, Government of India is implementing the following major programmes at the national level.

1. National Programme for Bovine Breeding and Dairy Development
2. Intensive Dairy Development Programme
3. Strengthening Infrastructure for Quality and Clean Milk Production
4. Dairy Entrepreneurship Development Scheme
5. National Dairy Plan-I
6. Dairy Processing and Infrastructure Development Fund
7. Rastriya Gokul Mission
8. Gokul Gram
9. National Mission on Bovine Productivity
10. National Livestock Mission
11. Entrepreneurship Development and Employment Generation
12. Rural Backyard Poultry Development

A combination of the three broad tools of communication namely, written, spoken, and visual, is utilised for successful awareness programmes (Fig. 2.2).



Fig. 2.2: Major tools of communication

### Types of awareness programmes

Awareness programmes can be broadly classified into three types according to their target groups, that is, an individual, a group or general masses. The methodology

adopted for different types of awareness programmes is shown in Fig. 2.3.

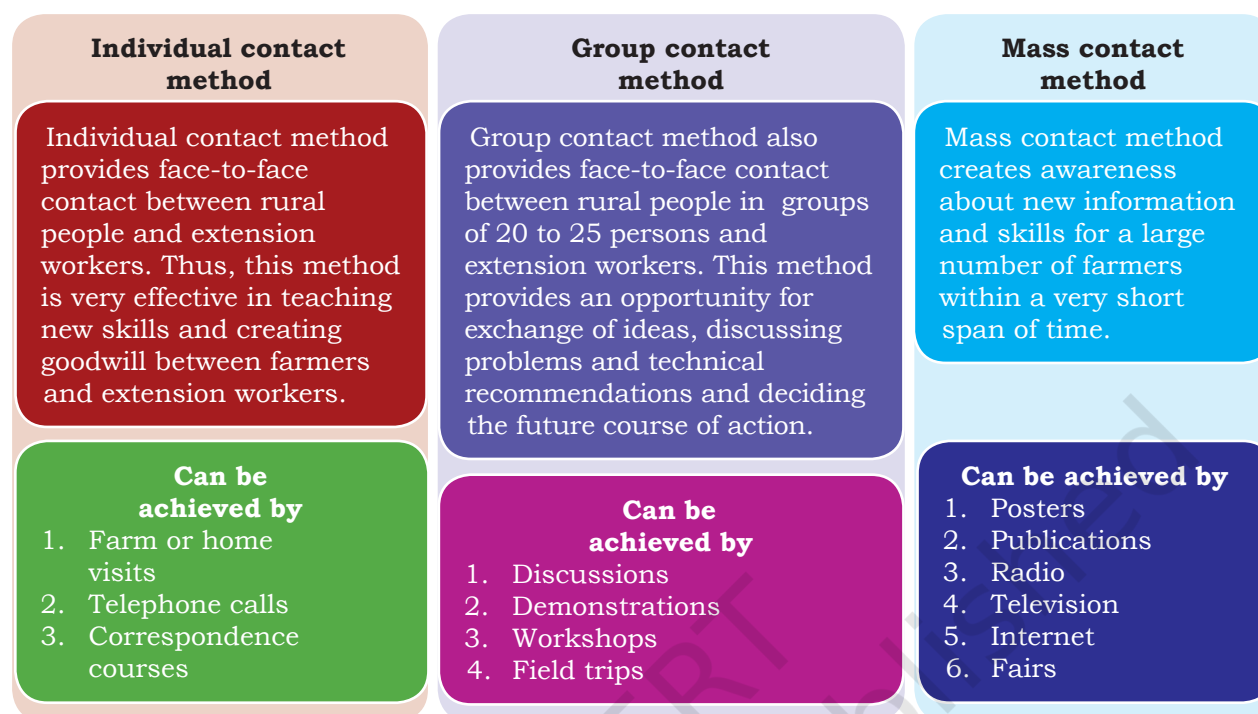


Fig. 2.3: Major types of awareness programmes for livestock farmers

## Steps for organising awareness programmes

An awareness programme usually has the following steps in the sequential manner as shown in Fig. 2.4.

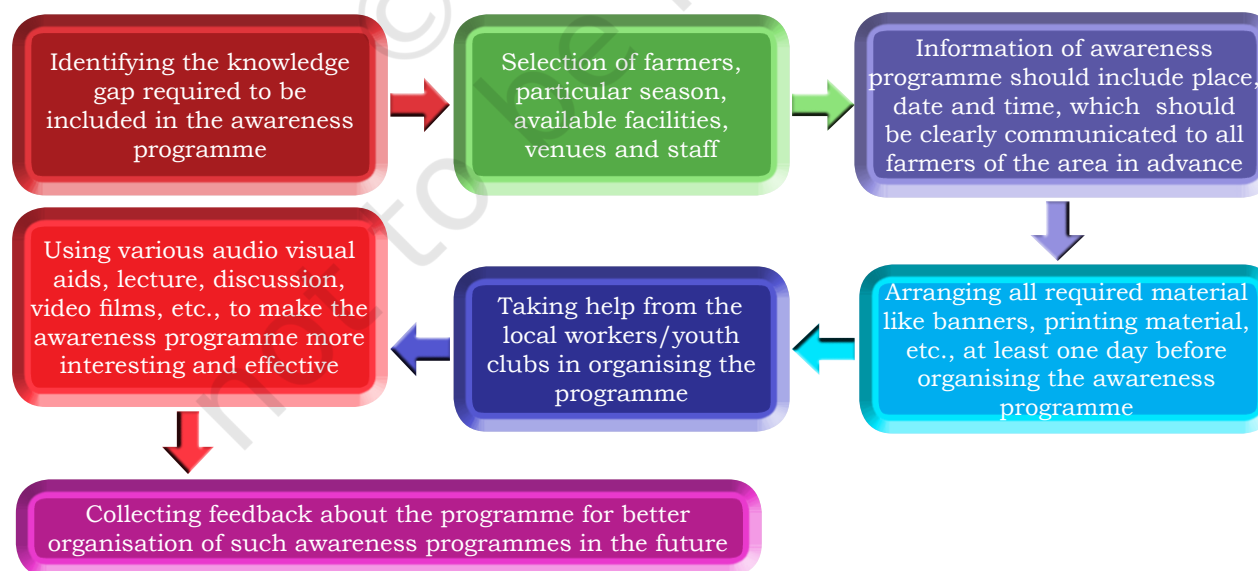


Fig. 2.4: Steps for organising an awareness programme



## Practical Exercises

1. Note down the various awareness programmes organised in livestock sector.
2. How does the extension worker and farmer communicate through individual contact method?

## NOTES

### Check Your Progress

#### A. Multiple Choice Questions

1. Extension awareness programmes aim to
  - (a) increase the efficiency of the farm
  - (b) increase production
  - (c) improve the standard of living of the farmers
  - (d) all of the above
2. To organise an awareness programme, which of the following is essential?
  - (a) Selection of farmers
  - (b) Available facilities
  - (c) Venues
  - (d) All of the above
3. Mass contact method includes
  - (a) Radio
  - (b) Discussion
  - (c) Demonstration
  - (d) Workshop
4. Individual contact method includes
  - (a) Posters
  - (b) Publications
  - (c) Telephone call
  - (d) Radio
5. Group contact method includes
  - (a) Posters
  - (b) Discussion
  - (c) Telephone call
  - (d) Radio

#### B. Fill in the Blanks

1. Awareness programmes mean extending the benefits of technology to the \_\_\_\_\_ population.
2. Main aim of awareness activities is to convey meaningful information to the \_\_\_\_\_.
3. \_\_\_\_\_ method creates awareness about new information for a large number of farmers within a very short span of time.
4. Group contact method also provides face-to-face contact between rural people in a group of \_\_\_\_\_ persons and extension workers.
5. \_\_\_\_\_ is an effort to extend research-based knowledge to the rural areas to improve the lives of farmers.

## NOTES

### C. Mark True or False

1. Various audio-visual aids, video films, etc., are used to make the awareness programme more interesting and effective.
2. An awareness programme offers advice and information to help urban population solve their problems.
3. Arrangement should be made for all required material like banners, printing material, etc., at least one month before organising the awareness programme.
4. Farm visit is considered as written communication method.
5. Collection of feedback about the present awareness programme is needed for better organisation of awareness programme in future.

## SESSION 2: GUIDING FARMERS ON BUSINESS OPTIONS AND BASIC ECONOMICS OF LIVESTOCK PRODUCTION

The principles of economics for market-oriented dairy farming are discussed in this session. Various costs of production are applicable to a dairy enterprise. The options for financing the enterprise are also discussed in this session.

### Basic economics of livestock-based activities

The economics of any livestock enterprise is studied by computing and analysing cost of production and the returns obtained from it. To get the profit and loss figures, that is, net returns, we subtract total cost from the gross return, that is, difference between the gross returns and the total costs. Therefore,

Net returns = Gross returns - Total costs

Positive net returns indicate profit for the enterprise and negative net returns indicate loss.

The computation of the economics is done for a particular period of time, depending on the nature of the enterprise. Usually, it is calculated for one production cycle for a livestock enterprise. One production cycle consists of the lactation period of a cow or buffalo.



## Types of costs in livestock-based enterprise

1. Fixed cost includes wages of permanent labour, interest on fixed capital assets, depreciation of the value of assets, etc.
2. Depreciation cost is the decline in the value of an asset due to wear and tear. Depreciation covers the cost of equipment and livestock before their usefulness is exhausted. It adds an annual charge to the fixed cost, which is enough to recover the original cost within that period. The junk value of the asset is calculated before calculating the depreciation cost. Junk value is the value of the asset obtained at the end of its economic life. So,

$$\text{Depreciation rate} = \frac{\text{Original asset value} - \text{Junk value}}{\text{Estimated life of that asset}} \times 100$$

3. Variable cost is the cost incurred on variable factors. These factors respond to changes in rate of output. They include wages of hired labour, expenditure on feed and fodder, fuel and electricity, transportation, veterinary care, etc.

## Returns from livestock-based enterprise

Two types of returns are obtained from livestock activities that is, main product and by-product. Main products are milk, meat, eggs, etc., and by-products include manure, etc. The quantity of both these products is multiplied by their respective prices. The sum obtained forms the gross returns. These returns are required to compute the profitability of a livestock enterprise.

**Table 2.1: Calculation of simple economics of a dairy enterprise**

Parameters	S. No.	Particulars
Fixed capital	1	Cost of building
	2	Cost of animals
	3	Cost of equipment and appliances
	4	Total fixed capital (S. no. 1+2+3)

Fixed costs	5	Interest on fixed capital (S. no. 4 x rate of interest)
	6	Depreciation cost on building (S. no. 1 x depreciation rate)
	7	Depreciation cost on animals (S. no. 2 x depreciation rate)
	8	Depreciation cost on equipment (S. no. 3 x depreciation rate)
	9	Total fixed costs (S. no. 5+6+7+8)
Variable costs (recurring costs)	10	Cost of feed and fodder Cost of concentrate mixture Cost of green fodder Cost of dry fodder
	11	Cost of treatment and vaccination
	12	Cost of labour
	13	Miscellaneous expenditure
	14	Total variable cost (S. no. 10+11+12+13)
Gross costs	15	Sl. no. 9+14 (total fixed cost+ total variable cost)
Returns	16	Sale of milk
	17	Sale of cow dung
	18	Sale of gunny bags
	19	Gross return (S. no. 16+17+18)
Gross profit	20	S. no. 19—S. no. 15
Net return		S. no. 20—bank loan repayment, if any

## Financial aspects and risk management

The following aspects of finance and risk management need to be considered for a livestock farm to flourish.

### Business plan and finance

Livestock farming is a risky and challenging business. Livestock farmers have to deal with unpredictable situations, such as disease outbreaks, animal losses, and market fluctuations. Many livestock farming businesses fail because the owner does not plan properly.

Business plans help in thinking strategically, managing effectively, and staying on track towards the goals. To enable lenders and investors to invest in your enterprise, it is important to develop an organised, well thought-out plan for them to evaluate and approve.





## Options for financing

Explore different options when deciding how to finance a livestock farm.

- If family and friends want to invest, be sure that the terms are clearly defined and all parties understand the conditions of the investment or financing agreement. Any potential problems can be addressed when communication and written documentation is clear.
- Many banks and lending institutions specialise in livestock loans. Their loan officials have the knowledge and experience to help you succeed. It is important to establish good relations with these people so you can discuss your needs and concerns openly. Being honest and open to options is a good way to address potential problems.

## Financial statements

Two primary financial statements are the balance sheet and the income statement. A balance sheet reflects the financial position of livestock business at a specific point in time. An income statement, also known as a profit and loss statement, shows all income and expenses over a period of time and indicates whether a business is profitable or not.

The various items to be included in a balance sheet are shown in Table 2.2.

**Table 2.2: Assets and liabilities**

Assets (list here what you own)	Liabilities (list here the money you owe)
1. Cash	1. Current bills
2. Certificates of deposit	2. Mortgages on real estate
3. Life insurance (cash value)	3. Loans
4. Securities (stocks, bonds)	4. Taxes
5. Real estate (market value)	5. Other liabilities (specify), etc.
6. Vehicles (market value)	
7. Individual retirement plan(s)	
8. Other assets (specify), etc.	
Total assets	Total liabilities
Net worth = Total assets – total liabilities	

## NOTES

### ***Other considerations to be kept in mind at the time of financing***

1. To minimise investment, start on a small scale.
2. Plan for the entire year before you start spending your income.
3. Prepare a budget and stick to it.
4. Keep current and accurate records. Pay attention to details of income and expenditure.
5. Avoid unnecessary borrowing. Making wise decisions and investments will pay off in the long term.
6. Set financial goals and review them often to be sure you are headed in the right direction.
7. Plan for reasonable living allowances for yourself and your family.
8. If you apply for a loan, be timely, plan ahead, and be prepared.
9. Establish a good credit history. Don't be late in repaying your loans.
10. Seek out a mentor in the livestock business and learn from him. This will result in a more positive experience than learning from your mistakes.

### **Managing risk**

Livestock farming is an inherently risky and labour-intensive business. Markets can fluctuate and current prices may not always support the cost of production. Dealing with risks proactively is what risk management is all about. Anticipate what might happen, and act to reduce the chances of it happening.

Risk of livestock business can be minimised by the following tools.

- (i) Insurance is a tool to protect personal and business assets. What type of liabilities do you face as a livestock farmer? Have you explored insurance options to cover accidents and injuries on the livestock farm?

- (ii) Diversified production simply means not putting 'all your eggs in one basket'. A good strategy for diversification in livestock farms is to keep small animals like goat and sheep with cattle or buffaloes.
- (iii) Marketing means to understand how and what drives the livestock business. What type of value-added products would benefit the livestock business? Which markets are most profitable? Which markets are most consistent?

### Steps for starting livestock-based enterprise

Starting a sustainable and profitable livestock farming business involves proper planning, management, controlling, and organising all factors of production at the right time. Therefore a step-wise process is followed to start the enterprise.

- (i) Selecting the right species of animals (cattle, buffalo, etc.) according to the area, weather, soil condition, and market facilities.
- (ii) Selecting the right breed as per the demand of consumers.
- (iii) Preparing a detailed project report with proper financial planning and cost and benefit analysis.
- (iv) Properly enlisting the available and required resources including financial resources.
- (v) Applying for government subsidy and grants.
- (vi) Participating in relevant trainings, demonstration, skill upgradation programmes of the relevant fields for improving knowledge and expertise.
- (vii) Using locally available, cost-effective and proper equipment with the latest technology.
- (viii) Conducting market research that is, proper marketing planning for output products.
- (ix) Proper maintenance of essential and required records.
- (x) Forecasting the uncertainty and risk related with an enterprise and remedial action for the same with proper management ability.

## NOTES

### Practical Exercises

1. Note down the capital investments required to start a dairy farm enterprise.
2. How do you handle risk, uncertainties and fluctuations in the market price of farm output?
3. What are the various types of cost included in the variable cost?

### Check Your Progress

#### A. Multiple Choice Questions

1. Fixed cost includes the \_\_\_\_\_.  
(a) cost of animals (b) cost of medicine  
(c) cost of electricity (d) All of the above
2. Variable cost does not include \_\_\_\_\_.  
(a) cost of feed and fodder (b) cost of building  
(c) cost of equipment (d) Both (b) and (c)
3. Depreciation cost is calculated on \_\_\_\_\_.  
(a) cost of animals (b) cost of building  
(c) cost of equipment (d) All of the above
4. Return from the livestock farm can be obtained from \_\_\_\_\_.  
(a) sale of milk (b) sale of gunny bags  
(c) sale of manure (d) All of the above
5. Risk in the livestock farm can be minimised by \_\_\_\_\_.  
(a) insurance  
(b) proper marketing of animal products  
(c) diversified production  
(d) All of the above

#### B. Fill in the Blanks

1. The difference between gross returns and the total cost is known as \_\_\_\_\_.
2. Many livestock farming businesses fail because the owner(s) do not \_\_\_\_\_ properly.
3. A good strategy for \_\_\_\_\_ in livestock farms will be to keep small animals like goat and sheep with cattle or buffaloes.
4. \_\_\_\_\_ is the value of the asset obtained at the end of its economic life.
5. Positive net returns indicate \_\_\_\_\_ for the enterprise.

**C. Mark True or False**

1. To minimise investment, start on a small scale.
2. To make livestock enterprises profitable, it is required to maintain essential records properly.
3. The government does not provide subsidy in livestock enterprises.
4. A profit and loss statement is also called an income statement.
5. Liability is a tool to protect personal and business assets.

**SESSION 3: MARKETING OF LIVESTOCK PRODUCTS**

Business activities which direct the flow of goods and services from producers to consumers are called marketing. In case of livestock, it comprises two components, that is, live animal marketing and livestock product marketing.

Apart from these, waste material like gunny bags and waste products like manure and urine also form a part of the livestock production system. However, these are relatively unimportant.

**Live animal marketing**

In India, animals are primarily kept as a supplementary source of income. Approximately 75–80 per cent of the dairy animals are kept in an average animal holding size of 2–8 animals. Thus, livestock farming in India is mostly a small farmer phenomenon. So, the marketing of live animals is mainly informal and lacks regulation and government supervision. Organised markets are far and few in number. Livestock that are marketed includes draught animals, dairy cows and small ruminants. These livestock are bought and sold at fairs, daily and weekly markets. In fairs and mandis (open wholesale market), farmers themselves are the sellers. Hence, these are the primary markets. Livestock markets are mostly under the influence of private individuals and local bodies. Except for a few states, there are no market committees or regulated markets.

## NOTES

### ***Methods of buying and selling of live animals***

Buying and selling are essential requisites for the establishment of a new farm and running an established livestock farm. Various groups involved in the buying and selling of animals are discussed below.

Breeders are professionals, whose principle occupation is breeding and rearing cattle. People who breed animals as a side occupation are also included in this group. These animals are mainly sold in cattle fairs and negotiations are done through brokers.

Nomadic traders buy and sell animals in the course of their movement from one place to another. These itinerant traders play an important role in the distribution of cattle all over the country.

Cattle dealers are a type of traders who live in villages and towns and make their purchase in one area and sell them in another. Some of these traders act as agents of wholesale dealers working in cities and towns and make purchases on their behalf.

Wholesale merchants are small in numbers and mostly transport cattle between states and also export them to foreign countries. Export merchants handle all types and classes of animals according to foreign demand. They are well aware of international rules involved in animal export.

The unit of sale in livestock may be on the basis of per head, per pair or per group. The most common is sale per head. The sale is usually accomplished after careful general physical inspection of the animal and examination of performance, like milking, in the case of dairy animals.

### ***Price determination***

Price determination of live animals is done through one of the following methods.

- Private treaty is when all negotiations are done through brokers. The buyers and sellers do not come in contact.
- Negotiation under cover where the buyers touch the fingers of the brokers under a covered cloth to keep secrecy from other buyers when there is more than one.



- Auctions are when an animal is given to the highest bidder who has examined the animal earlier. This method is easy and helps in quick sale of animals when the number of buyers is more. After the settlement, advance amount is paid. The sale registration is done by a deed writer. In case of any dispute, there are arbitrators who take the decision.

### ***Webportal or e-pashuhaat***

At present, there are many shortcomings in animals' trade market, such as,

- (i) there is no authentic organised market.
- (ii) it is very difficult to get quality disease-free animal of high genetic merit.
- (iii) there is misleading valuation due to lack of knowledge of the past history of the animals.
- (iv) other malpractices include removal of horns and filling of teeth to give a misleading impression of the real age of the animals.

A web portal 'e-pashuhaat' has been developed by the Government of India under the National Mission on Bovine Productivity. E-pashuhaat is a unique web portal, which has been developed for connecting breeders and farmers regarding availability of high genetic merit animals. This portal will assist farmer/breeders to sell and purchase breeding stock. They can find and utilise information on all forms of germplasm including semen, embryos and live animals are the agencies and different stakeholders in India. Through e-pashuhaat, farmers will be informed about the availability of quality disease-free bovine germplasm with different agencies in the country. The main aims and objectives of this portal are:

- (i) promotion of e-trading
- (ii) to act as a market portal for livestock germplasm and additional related services
- (iii) to connect farmers with breeders, central, state cooperative, milk federations, and private agencies

- (iv) to provide real time authentic certified information on availability of germplasm

### Livestock products marketing

In India, almost all livestock products are marketed through the unorganised sector. Only in the case of milk and eggs, there are partially organised markets. Unlike crops or horticultural produce, most of the livestock products are highly perishable and have very low shelf life. This forms a primary challenge in marketing of livestock products. From the marketing perspective, livestock products can be classified as high value food produce (milk, meat and eggs, etc.) and commercial produce (wool, hair, skin and hide, etc.).

#### **Marketing of high value food produce**

##### *Milk and milk products marketing*

The milk market is largely informal. Only 15 per cent of the milk is marketed through formal channels. Nearly 45 per cent of the milk produced in the country is retained by rural producers and the rest is marketed as fresh milk.

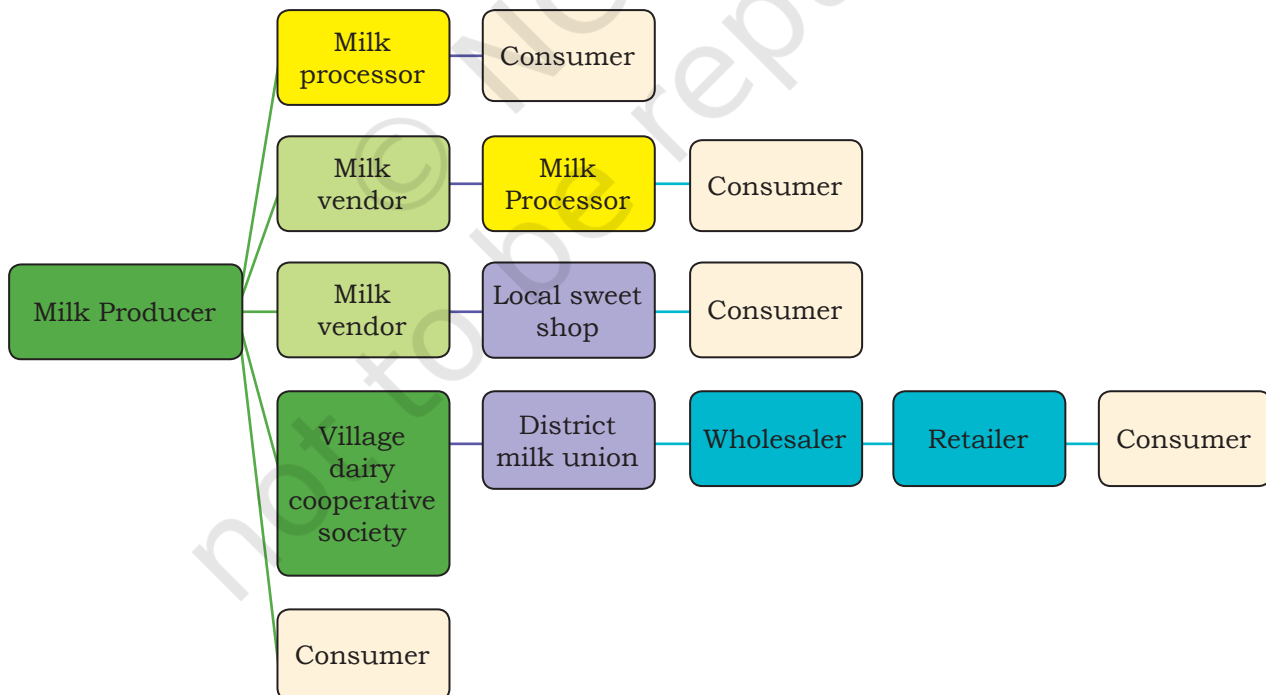


Fig. 2.5: Channels of milk marketing in India



Cooperatives and private players play an important role in the formal sector. Milk processing is mainly carried out through this sector (that is, production of ghee, butter, ice-cream, etc). Fluid milk is sold in packs of 0.5 litres and 1 litre. The leading cooperatives in India are Amul, Mother Dairy, etc.

Some private players also have an important role in the dairy market. The dairy cooperatives play an important role in linking farmers to markets. Their role in poverty alleviation is praiseworthy. Despite their importance and role in milk marketing, their contribution in the quantity of milk handled, installed processing facilities and marketing infrastructure are highly skewed. Only in states like Gujarat, Maharashtra, Tamil Nadu and Karnataka, cooperatives handle more than 2/3rd of the total milk procurement. In the remaining states, the accessibility of milk cooperatives by producers is not up to the desired level. The common channels of milk marketing in India are shown in Fig. 2.5.

Processing of milk in the informal sector is restricted to tea shops, restaurants, and sweetshops. A few households and self-help groups (SHGs) also process milk and market the products. From a farmer's perspective informal markets are unstable and often exploitative, particularly during surplus seasons. Here, prices are determined arbitrarily and under-pricing is common in peak production season of milk.

### *Meat marketing*

Marketing of meat is totally operated by the unorganised private sector. The role of the government or any regulatory agency in the marketing of meat is negligible. Marketing of meat, starting from procurement of animals in the villages, to the sale of meat to consumers at retail shops, is entirely in the hands of middlemen. Mainly goat, pig, sheep and poultry are reared for meat production in India. There are official slaughterhouses owned by local bodies but they lack modern facilities and even hygienic conditions. Usually, proper scientific slaughter procedures and meat inspection facilities are not followed.

## NOTES

The local village traders and wholesale butchers operate in almost all urban consumption centres. They buy animals from rural producers in bulk and redistribute them to urban consumption centres. Slaughtering and disposal of smaller quantity of meat is done at the retailers premises itself.

### *Broiler marketing*

In Indian broiler industry, there are several large-scale private players. They enter into contract farming with the producers. With their entry, the poultry production and marketing activities have become integrated, leading to processing and developing value-added poultry products. Their entry has also improved the cold storage and transportation facilities in these sectors. However, since such players are restricted to a specific region only, there is a need to scale up both backward and forward integration. There is a need for fixing prices based on the actual cost of production rather than only on demand and supply. In villages, poultry traders and commission agents still play an important role and fix prices on a day-to-day basis. These prices are mainly non-remunerative for the producers. Further, very little value addition happens at the village level.

### *Egg marketing*

The National Egg Coordination Committee (NECC) declares the prices of eggs after monitoring the supply and demand situation. It is not a government organisation and is a producers' association. Egg prices are generally fixed twice a week by the various regional centres. Here the primary problem is that the prices are not determined on the basis of cost of production but on demand-supply scenario, which can cause losses to layer poultry farmers. The layer poultry farmers mainly raise the egg laying poultry birds which will be subsequently used for commercial egg production. Further, NECC is not always able to administer declared prices due to scarcity of funds. Therefore, there is an immense need for backward and forward integration to avoid middlemen and intermediaries. This would help in quality control and standardisation in this sector and also help in delivery of fresh eggs to consumers.

ANIMAL HEALTH WORKER – CLASS X

### **Commercial livestock products marketing**

These products are generally considered as by-products of livestock production. They also constitute income for livestock owners.

#### *Marketing of wool*

In India, wool procurement is generally made through private traders and government agencies. Also the wool produced, being coarse, is used in the carpet and khadi industry. In India, as currently sheep is primarily reared for meat, the wool market has not developed over time. Only 10 per cent of the wool is graded and the remaining 90 per cent is sold as ungraded.

#### *Marketing of hides and skins*

The sale of hides and skins in villages occurs through various levels of middlemen. They operate at the village and block levels to the terminal markets, from where they reach the tanneries. In the urban areas, slaughterhouses act as a source of hides and skins.

### **Constraints in livestock marketing**

The following are some of the constraints faced in marketing in the livestock sector.

1. Most of the livestock products are of highly perishable nature.
2. Poor market information systems.
3. Livestock farms are scattered, unorganised and unregulated. Most often, pricing of livestock products is at the mercy of middlemen and intermediaries.
4. Livestock products are mainly produced in rural areas have a major market in the urban areas.
5. There is seasonality in demand of livestock products, for example, demand of eggs is higher in the winter season.
6. The absence of grading and standardisation in livestock products.
7. The lack of awareness about hygienic production of animal products and the processing environment.

## NOTES

### NATIONAL AGRICULTURE MARKET (E-NAM)

The Ministry of Agriculture and Farmers' Welfare, Government of India, has created this online electronic trading portal, which networks the existing APMC (Agricultural Produce Market Committee) mandis to create a unified national market for agricultural commodities all over the country. This portal gives an opportunity to 'plug-in' to various markets (whether regulated or private), existing in a state. The NAM software is available to those mandis that agree to join the national network. It is free of cost with necessary customisation to conform to the regulations of each State Mandi Act. A mandi refers to a wholesale marketplace of agricultural and animal products. Currently only agricultural produce like pulses, cereals, vegetables, and fruits are being traded on the NAM platform. In future, animal products such as milk and processed products, eggs and meat are likely to be included for trading on the NAM platform.

It provides all the information related to all APMC-related information and services on a single portal. This information includes commodity arrivals and their prices, offers on buying and selling produce, provision to respond to trade offers, etc. Although the agricultural produce moves through mandis, this online market reduces transaction costs and information asymmetry.

#### Practical Exercises

1. Note down the milk marketing channels existing in your area.
2. Visit a livestock market. Note down how the animals are sold in the market.

#### Check Your Progress

##### A. Multiple Choice Questions

1. NECC stands for
  - (a) National Energy Circulation Committee
  - (b) National Egg Coordination Committee



- (c) National Egg Cooperative Committee
- (d) None of the above
- 2. Which of the products is not considered as a processed milk product?
  - (a) Whole milk
  - (b) Cream
  - (c) Ghee
  - (d) Butter
- 3. Which of the following is a cooperative?
  - (a) Amul
  - (b) Sanchi
  - (c) Mother Dairy
  - (d) All of the above
- 4. Determination of the price of live animals can be done through
  - (a) private treaty
  - (b) negotiation under cover
  - (c) auctions
  - (d) all of the above
- 5. The main objective of e-pashuhaat portal is
  - (a) promotion of e-trading
  - (b) to act as market portal for livestock germplasm and additional related services
  - (c) to connect farmers with breeders
  - (d) all of the above

**B. Fill in the Blanks**

- 1. \_\_\_\_\_ is the performance of business activities that directs the flow of goods and services from producers to consumers.
- 2. In India, most of the livestock products marketing are made by \_\_\_\_\_ sector.
- 3. Wool produced in India is mainly of \_\_\_\_\_ type used in carpet and Khadi industries.
- 4. SHGs stands for \_\_\_\_\_.
- 5. Livestock markets are mostly under the influence of \_\_\_\_\_ sector.

**C. Mark True or False**

- 1. Cooperatives and private players play an important role in the informal sector.
- 2. Most of the livestock products are not of perishable nature.
- 3. There is an absence of grading and standardisation in livestock sector.
- 4. Consumption of livestock products is mainly an urban phenomenon in India.
- 5. In India, livestock are reared by small farmers.